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Abstracts of articles in other South African journals

INVESTMENT ANALYSTS JOURNAL

Melgarejo, M (2014). Does beating cash flow benchmarks reduce the cost of debt? *IAJ* **43**(80), 25–36

This paper examines whether beating previous year cash flow values and analysts' cash flow forecasts impact the firms' cost of debt. Creditors are expected to be more concerned about firm solvency than firm profitability. Accordingly, if lenders have any reference point it may be related to cash flow numbers. This study finds that firms that beat analysts' cash flow forecasts have smaller initial bond yield spreads in the next period and a decrease in their initial bond yield spreads between consecutive periods. This effect is more pronounced at short maturities and for observations with less informative earnings. Firms with lower earnings response coefficients that beat analysts' cash flow forecasts show a higher probability of a credit rating upgrade.

Levy, KH, Kanat, Y, Kunin, A, Tooshknow, D & Tzruya, P (2014). Predicting defaults of highly-levered firms with an adapted Altman model. *IAJ* **43**(80), 37–43

The purpose of this paper is to analyse whether applying Altman's model, with specific adjustments to highly levered firms, can reliably predict bankruptcies one quarter, one year, and two years in advance. Our focus on highly-levered firms is motivated by leverage-driven theories of financial crises, where highly-levered firms are the early defaulters once the expansionary phase of the business cycle turns into a recessionary phase. We find high predictability of defaults of firms in the real-estate and holding-companies sectors in Israel one year before the recent crisis.

Gerritsen, DF & Lotter, R (2014). The impact of analyst recommendations and revisions on the prices of JSE-listed companies. *IAJ* **43**(80), 45–57

This study establishes that equity analyst recommendations have a significant short-term impact on share prices, by utilising an international database containing 31 363 analyst recommendations on JSE-listed and delisted companies, published over the period 1995 to 2011. In addition, two portfolio strategies were constructed. The first strategy shows that only investing in stocks with the most favourable consensus recommendations is associated with significant abnormal returns. The second strategy demonstrates that a portfolio consisting of recently upgraded stocks earns positive abnormal returns while a portfolio consisting of downgraded stocks is associated with negative abnormal returns.

Page, D & Auret, C (2014). A time-series approach to testing the cash-flow beta on the JSE. *IAJ* **43**(80), 59–69

Van Rensburg and Robertson (2003) stated that the CAPM beta estimated using share returns has little or no relationship with returns generated by size and value (proxied by price-to-earnings) sorted portfolios. This study intends to show that a reformulated CAPM beta, estimated using return on equity as opposed to share returns, unravels the size and value premium. The study makes use of vector autoregressive models in order to examine the short-term effect of structural shocks to the cash-flow fundamentals of a share or portfolio of shares through impulse response functions as well as quantifying a long-term relationship between cash-flow fundamentals and share returns using a vector error correction model (VECM) specification.

Kim, JS & Ryu, D (2015). Effect of the subprime mortgage crisis on a leading emerging market. *IAJ* **44**(1), 20–42

This study examines how the US subprime mortgage crisis affects the behaviour of the Korean stock and futures market and how the futures traders react to the shocks related to the crisis. Analysing a unique and high-quality daily dataset on the ABX subprime index of the United States, Korea's implied volatility index (VKOSPI), and the KOSPI200 index and futures, we find a significant linkage and contagion effect between the US subprime market and the Korean market during the crisis period. However, the explanatory power of the ABX index return dissipates during the period of the recovery (after 2010). Our analysis, based on unique information about the types of futures traders, indicates that foreign investors are quite sensitive to the subprime shocks, whereas domestic investors are not. Furthermore, the empirical findings indicate that domestic individual investors invest their money in the opposite direction of the ABX index's movement during the subprime crisis period.

Tsai, I-C (2015). Information content in the depth of futures markets. *IAJ* **44**(1), 43–56

The paper uses open interest as the proxy variable of market depth to estimate its effects on volatility, return, volume and deviations of contract prices from the fundamental level. It adopts open interest from three types of investors, namely, dealers, trusts and foreign investors, to analyse the information content of trading demand from these investors. The results show that the trading activity of foreign investors influences the succeeding deviations of futures prices and that the open interest of dealers contains more information, which reveals information of volatility and trading volume and influences the open interest of trusts, thus affecting the open interest of foreign investors.

Huang, H-C, Su, Y-C & Wang, H-Y (2015). Convergence to market efficiency: the case of seasoned equity offering stocks. *IAJ* **44**(1), 57–70

This study examines the relationship between returns and contemporaneous and lagged-order imbalances by regression analysis. Conditional on contemporaneous imbalances, a significantly negative relationship is found between lagged-one imbalances and returns, except for a 10-minute time interval. This suggests that seasoned equity offering (SEO) markets converge to efficiency within 10 minutes. In addition, a GARCH model is used to examine the dynamic relationship between volatility and order imbalances. The empirical results demonstrate that market-makers effectively mitigate volatility in SEO announcements, demonstrating a price stabilisation capability in secondary market-making.

Eom, C, Park, J-W, Kim, YH & Kaizoji, T (2015). Effects of the market factor on portfolio diversification: the case of market crashes. *IAJ* **44**(1), 71–83

This paper investigates empirically the effects of the market factor on the degree of portfolio diversification extracted from Markowitz's mean-variance (MV) model to explore an alternative method for improving the practical usefulness of the model. It controls for various properties included in a correlation matrix of stocks in a portfolio. According to the results based on correlation matrices with and without the property of the market factor, the strength of the market factor has a negative effect on the degree of portfolio diversification in the MV model. This finding is stronger for periods of market crashes. These results suggest that the method for controlling for properties included in the correlation matrix might be a possible solution for enhancing the usefulness of the MV model from a practical perspective.

Miller, C & Ward, M (2015). The market impact on shares entering or leaving JSE indices. *IAJ* **44**(1), 84–101

A company's entry into (or exit from) a major share index provides a special opportunity to examine price discovery. In an efficient market, we expect the demand curve to remain horizontal and to be unaffected by external events that do not communicate new information to the public, even if demand is affected. However, there is evidence that changes to index composition do impact the value of affected shares. This may be due to the price pressure generated by passively managed investment funds that simultaneously reconstitute their portfolios in order to remain aligned to the index they are tracking. This study investigates downward sloping demand curves, price pressure and other hypotheses which are related to changes in index composition on the Johannesburg Stock Exchange (JSE). We calculate abnormal returns using a control portfolio model for shares entering/exiting four major FTSE/JSE indices between 2002 and 2011. In the pre-event window, a long-term increasing trend was observed in the share prices of companies that are added to market cap weighted indices, beginning 70 trading days before the effective date. The opposite behaviour was true for index deletions, with some variation in the timing. In the post-event window the results show, to some extent, an asymmetric response to share returns; shares entering the index underperform thereafter, whereas those leaving the index outperform. Although these findings were not significant for all of the indices examined, they do support the Price Pressure Hypothesis of Harris and Gurel.

Fang, Y & Wang, H (2015). Fund manager characteristics and performance. *IAJ* **44**(1), 102–16

This study establishes a multitier framework to evaluate how fund manager characteristics systematically affect mutual fund performance. The framework includes three tiers of performance elements: comprehensive performance; return and risk; and timing skill and picking ability. Using performance decomposition, our evidence indicates that various characteristics take distinct channels to influence return, risk and fund manager abilities, which in turn affect comprehensive performance. In particular, having a degree of Master of Business Administration or a Chartered Financial Analyst qualification is significantly associated with a fund manager's better stock-picking ability, higher excess returns and better comprehensive performance.

Strydom, B, Charteris, A & McCullough, K (2015). The relative tracking ability of South African exchange traded funds and index funds. *IAJ* **44**(2), 117–33

The Efficient Market Hypothesis holds that it is not possible to 'beat the market' and that a passive investment strategy is optimal. Traditionally investors have been able to do this by investing in index funds replicating an index, but the emergence of exchange traded funds (ETFs) has afforded investors with an alternative passive investment strategy. This paper employs several measures of tracking error to test the relative tracking ability of index funds and ETFs which track the FTSE/JSE Top 40 index. We find that ETF's are superior tracking instruments, although there is evidence to suggest that the performance of index funds has improved over the most recent three-year period.

Lee, HS & Yao, J (2015). Evaluating and predicting the failure probabilities of hedge funds. *IAJ* **44**(2), 134–50

Hedge funds have the most sophisticated risk management practices; however, they also appear to have a short lifetime relative to other managed funds. In this study we investigate the failure probabilities of hedge funds—particularly the failures due to financial distress. We forecast the failure probabilities of hedge funds using both a proportional hazard model and a logistic model. By utilising a signal detection model and a relative operating characteristic curve as the prediction accuracy metrics, we found that both models have predictive power in the out-of-sample test. The proportional hazard model, in particular, has stronger predictive power, on average.

Zaremba, A (2015). Country selection strategies based on value, size and momentum. *IAJ* **44**(3), 171–98

This study provides convincing evidence that stock markets with low capitalisation, low valuation ratios and high momentum tend to outperform country markets with high capitalisation, high valuation ratios and low momentum. Based on sorting procedures and cross-sectional tests conducted across 78 countries over the period 1999–2014, it has been found out that value, size and momentum effects at the country level are stronger across small and medium country markets than large ones. Thus, bearing in mind the declining benefits of international diversification observed in recent decades, it is recommended that investors include country-level factor premiums in their strategic asset allocation, without postponing them to further stages of an investment process. In addition, it has been shown that inter-market value, size and momentum effects may be used in multifactor asset pricing models, which well explain the variation in stock returns at the country level.

Alda, M (2015). Herding and timing abilities: are both possible? *IAJ* **44**(3), 199–221

We examine the existence of herding by institutional investors, analysing whether herding measures are affected in a mixed scenario, where certain skilled managers can develop timing abilities, and others herd. Studying a sample of Spanish pension funds investing in European equities from 2002 to 2013, this paper contributes to the financial literature by considering the possible influence of a range of timing abilities in herding. The results show the existence of certain timing abilities and herding, being the herding phenomenon more evident at the beginning of the current crisis and after the financial restructuring process experienced in Spain since 2010. Nonetheless, the market equilibrium is not affected in the long term. Our results also display that herding measures vary when taking into account timing abilities, so traditional herding measures do not fully capture the existence of mixed scenarios.

JOURNAL OF SOUTHERN AFRICAN STUDIES

Death, C (2014). Environmental movements, climate change, and consumption in South Africa. *JSAS* **40**(6), 1215–34

The environmental movement in South Africa is plural and diverse, but lacks a strong centre or unified framing. How can we explain and understand this, and what consequences does it have for ecological politics in South Africa? There are many environmental grievances, extensive resources available to potential social movements, and a broadly favourable political opportunity structure. On the other hand, prominent environmental organisations have faced a number of limits, obstacles and challenges that have prevented the formation of a strong, unified and popular 'green' movement. Movements on land, housing, and service delivery, however, have thrived in comparison, and, while they tend not to self-identify as environmental movements, they should be regarded as important elements of broader progressive environmental struggles in South Africa. Consumption may also become a powerful framing issue for environmental justice movements, and its relevance to contemporary South Africa is illustrated through a controversial township youth phenomenon known as 'pexing'. While it is important to ensure that South African environmentalism does not become inward-looking and nationalistic, a strong environmental movement is essential for driving a political transformation on to a more environmentally sustainable development path.

Karwowski, E (2015). The finance–mining nexus in South Africa: how mining companies use the South African equity market to speculate. *JSAS* **41**(1), 9–28

Until recently, the deepening of financial markets in developing countries has been widely seen as growth-enhancing. A well-developed capital market—so the argument goes—provides a source of finance for productive investment, thus fostering growth. South Africa possesses one of the oldest stock exchanges among emerging economies, making the country a good case study to scrutinise such growth-enhancing effects. Employing a detailed—and original—analysis of company annual reports and financial statements, this article questions the validity of the growth-enhancing claims made for financial deepening. Although the South African equity market is a source of substantial funds for mining companies, the consequences of their activity do not appear to enhance growth but rather to induce financial fragility. New evidence will show that listed mining companies use financial markets to support their speculation in mining assets. As a consequence, financial funds are channelled into few productive activities with limited impact on job creation. Crucially, detrimental effects on monetary policy and domestic credit growth can be expected, since external finance is not flowing towards productive investment but ends up as cash holdings on corporate balance sheets. This trend in turn encourages rapid credit expansion, which recently favoured unsustainable consumption-driven growth in South Africa, leaving the country with heavy job losses and high household debt in the aftermath of the global financial crisis.

Vale, B & Thabeng, M (2015). Mobilising AID(S)? Contesting HIV as a social and economic resource among youth in South Africa's Eastern Cape. *JSAS* **41**(4), 797–813

This article explores how perinatally infected youth in the Eastern Cape province of South Africa tactically engage with both the burdens and potential resources of growing up with the human immunodeficiency virus (HIV). Further, it asks how this might shape their interpretation and practice of anti-retroviral therapy (ART). By activating particular categories of need—related to death, illness and orphanhood—HIV-positive youth and their families are able to access vital health and social care, sometimes in unprecedented and privileged ways. This has been enabled by the profound effect that acquired immune-deficiency syndrome (AIDS) has had on how state and donor resources are allocated.

Drawing on eight months of qualitative fieldwork, we examine the ambiguous position of young ART users. While many perinatally infected youth endure compounding burdens of chronic morbidity, daily medication-taking and parental loss, they also capitalise on the particular weight ascribed to these burdens within South Africa's care economy. The additional assistance they receive can produce community and family resentments, born out of the scandalous confluence of access to resources with a stigmatised and incurable illness. Thus, in addition to its scientific properties, HIV treatment also has symbolic and social roles for youth. The ways in which young people use ART should be interpreted amid a preceding social order, in which post-apartheid communities partake in contentious struggles for survival and upward mobility. Future policy and programming can benefit from a deeper understanding of the social stakes involved in young people's engagement with ART support services.

Klausen, SM & Parle, J (2015). Are we going to stand by and let these children come into the world? The impact of the 'thalidomide disaster' in South Africa, 1960–77. *JSAS* **41**(5), 735–52

Thalidomide is in many ways the archetypal drug of our era. Produced in the mid 1950s by the German firm Chemie-Grünenthal GmbH, and sold directly by them or by licencees, it was one of a multitude of medications industrially created during the post-Second World War boom in synthetic drugs and aggressively marketed for multiple uses on a global scale. Most notoriously given to pregnant women suffering from morning sickness, without adequate testing for either toxicity or effectiveness, thalidomide was advertised as being 'completely non-poisonous, completely safe'. Instead, in what became known as the 'thalidomide scandal', it caused malformations resulting in at least 10,000 children being born with severe disabilities. Previous research has shown that thalidomide was given out as samples, sold over the counter, or distributed via national health facilities in at least 46 countries around the world. It has become conventional wisdom that there are no histories to be told of thalidomide in South Africa, or in the continent more widely. We challenge this view. We focus specifically on South Africa, and describe how the country narrowly missed an 'epidemic of deformity' in the late 1950s and early 1960s. We then demonstrate that the international thalidomide scandal affected South Africa in at least two significant ways. First, it informed the passage of the Medicines and Related Substances Control Act (No. 101) of 1965, which established the Medicines Control Council of South Africa. Second, it played an important role in the debate over abortion law reform in the early 1970s, in particular regarding the desirability of a eugenic clause in South Africa's first statutory law on abortion, the Abortion and Sterilisation Act (1975).

MANAGEMENT DYNAMICS

Lotter, R (2014). The impact of the 2008 financial crisis on the performance of general equity unit trusts. *MD* **23**(3), 2–12

This study evaluates the effect of the 2008 market crash on general equity unit trusts' performance persistence and performance relative to fund size. Fund performance relative to fund expenses after the 2008 market crisis is also assessed. Overall, managers' ability to remain in the same ranking quartile decreased after the 2008 market crash. The findings contradict the conclusion of previous studies that performance persistence decreased as lengthier subsequent periods were considered before and after 2008. Performance persistence patterns over six and 12 months changed significantly after the 2008 crisis. It is concluded that the total expense ratio of the funds should not be considered as an indication of expected performance. Contrary to the negative relationship between performance and unit trust size reported by studies before the crisis, this study did not reveal any significant relationship after the crisis. The largest funds proved to have the most stable quartile rankings after the 2008 financial crisis.

Theart, L & Krige, N (2014). Liquidity as an investment style : evidence from the Johannesburg Stock Exchange. *MD* **23**(3), 30–42

In the mid-1980s it was suggested that liquidity might be a factor influencing stock returns. However, in the South African equity market, studies of this so-called liquidity effect are still limited. This study analysed liquidity as a risk factor on the Johannesburg Stock Exchange (JSE) during the period 1996 to 2012, using different methodologies from those employed in previous South African studies. In contrast to most United States-based studies, this study found that liquidity is not a significant risk factor affecting broad market returns. Instead, the effect is significant in small- and low-liquidity portfolios only. However, the study found that including a liquidity factor improved the Fama–French three-factor model in capturing shared variation in stock returns. Finally, incorporating a liquidity style into two passive portfolio strategies yielded weak evidence of enhanced risk-adjusted performance.

Mans-Kemp, N & Viviers, S (2015). The relationship between corporate governance and dividend payout ratios: a South African study. *MD* **24**(2), 20–35

The outcome dividend model suggests that companies exhibiting sound corporate governance compliance typically pay high dividends. In line with international research, this study provides empirical support for the model's relevance in South Africa. Using content analysis, a comprehensive corporate governance score was computed for a sample of companies listed on the Johannesburg Stock Exchange over the period 2002–10. The mean annual corporate governance scores and dividend payout ratios of the sample companies increased over the research period. Two corporate governance categories, namely board composition and board committees, showed a significant positive relationship with dividend payout ratios. The findings suggest that shareholders should exert more pressure on boards to improve their monitoring of managerial decisions, including those pertaining to the distribution of free cash flow. In addition, board structures that are more unitary and include independent directors from different backgrounds are recommended, as they may further enhance value-adding corporate decision-making in South Africa.

MEDITARI ACCOUNTANCY RESEARCH

Guidara, A, Khlif, H & Jarboui, A (2014). Voluntary and timely disclosure and the cost of debt: South African evidence. *MEDAR* **22**(2), 149–64

The aim of this study is to investigate the effect of voluntary and timely disclosure on the cost of debt for the South African setting. The sample of this paper consists of 20 South African listed non-financial companies for the period 2008–2011. A content analysis is used to measure the extent of voluntary disclosure. Timely disclosure is proxied by earnings reporting lag. Results show that the extent of voluntary disclosure is negatively and significantly associated with the cost of debt. In contrast, timely disclosure exerts a trivial effect on the cost of debt. When testing for the moderating effect of timely disclosure on the association between the extent of voluntary disclosure and the cost of debt, this paper documents that this association is only negative and significant for the shorter earnings announcement lag group. The findings of this paper have policy implications for managers in the South African setting and other developing economies similar to South Africa, given the crucial role played by debt as an important source of external financing for publicly traded companies.

Massa, L, Farneti, F & Scappini, B (2015). Developing a sustainability report in a small to medium enterprise: process and consequences. *MEDAR* **23**(1), 62–91

The aim of this study is to shed light on the mechanisms involved in, and consequences of, developing a sustainability report in a small to medium enterprise. Action research is used to provide insights into the initial stages of the development of the sustainability report and its consequences. "Mike" is an Italian small organisation with a sustainability orientation selling products and services about wellness and health. It decided to develop a sustainability report in 2013. The authors find that the organisation's initial aim to report on its sustainability later extended beyond disclosure to using the information to enhance its sustainable development approach and awareness, consider long-term planning, support strategy-making based on the sustainable development concept and establish and enhance its reputation. This research is limited to the analysis of only one small Italian organisation and as such cannot claim generalisability of its findings. The findings indicate that the sustainability initiative of this organisation, while originally focused on reporting, evolved into strategy and planning. Managers in similar organisations may learn from this experience to focus on strategy-making and social and environmental value creation. The study examines sustainability reporting in the previously overlooked area of small and medium enterprises.

Stent, W & Dowler, T (2015). Early assessments of the gap between integrated reporting and current corporate reporting. *MEDAR* **23**(1), 92–117

The purpose of this paper is to provide early assessments of the changes for corporate reporting processes, which an emerging initiative like integrated reporting (IR) will require. The authors also consider the potential for these changes to contribute towards resolving major problems such as financial and environmental crises. IR is gaining momentum globally, and the implementation of some form of future mandatory requirement in this regard appears likely. The authors begin by developing a reporting checklist based on the requirements for IR, which they use to assess the gap between current "best practice" reporting processes and IR. They then propose systems thinking, a widely accepted approach to problem-solving, as a theoretical basis for assessing the IR Framework and for deeper consideration of the gap analysis. They demonstrate, at a paradigm level, how systems thinking can be used to assess IR and find that IR has the potential to offer specific and implementable strategies for operationalising systems thinking principles. The authors assess 2011 annual reports and related online reporting practices for four New Zealand "best practice reporting entities", using their reporting checklist. Although none of their sample entities published a full integrated report for 2011, reporting scores range from 70 to 87 per cent. The findings suggest that current reporting processes lack the integration, oversight and due attention to future uncertainties required by IR. While this appears to be a relatively small gap, systems thinking principles indicate that these deficiencies may be critical to sustainability and financial stability, the stated aims of IR. However, the normal limitations of small sample studies apply. The IR reporting checklist and systems thinking proposal could be used by policymakers, standard setters and firms to assist in assessing IR's potential and the additional requirements it will impose for corporate reporting. This study answers calls in the literature for a reactivation of the normative research agenda by assessing IR against systems thinking, a widely accepted approach to problem-solving. It contributes further to an understanding of IR through the development of a unique reporting checklist and by offering empirical evidence derived from application of this checklist.

Atkins, J & Maroun, W (2015). Integrated reporting in South Africa in 2012: perspectives from South African institutional investors. *MEDAR* **23**(2), 197–221

This paper aims to explore the initial reactions of the South African institutional investment community to the first sets of integrated reports being prepared by companies listed on the Johannesburg Securities Exchange. The research highlights a shift in attitude towards ESG and integrated reporting, initial views on the first sets of integrated reports and obstacles to the preparation of high-quality reports. The study also includes recommendations for preparers. Detailed interviews are carried out with 20 experts from the South African institutional investment industry. Interpretive thematic analysis is used to identify themes and principles and construct an initial assessment of the investors' views on South African integrated reporting. The new reporting framework is seen as an improvement on the traditional annual report of South African listed companies. In general, there is more emphasis on non-financial measures and evidence of an effort to integrate financial and environmental, social and governance metrics to provide a better understanding of organisational sustainability. The length of reports, repetition and a check box approach to reporting does, however, detract from the usefulness of the reports and undermine the development of an integrated thinking ethos. The study is limited to exploring the views of only a single group of stakeholders at one point in time. The reader's attention is also drawn to the fact that the study was carried out before the International Integrated Reporting Council's framework for integrated reporting was applied by South African preparers. Nevertheless, its interpretive style allows identification of challenges to effective integrated reporting. This paper is the first to examine the views of institutional investors and analysts on South African integrated reports. It makes an important contribution to the academic literature by adding to the limited body of research on integrated reporting and corporate governance in an African setting. The study is also important for practitioners seeking to improve the quality of their integrated reports and for academics wanting to understand the problems and possible strategies for addressing these.

Wessel, MB (2015). Fair value measurements of exchange-traded funds. *MEDAR* **23**(3), 331–47

This paper aims to investigate the extent to which different prices within the bid-ask spread are used for fair value measurements and evaluate the potential consequences thereof. The paper investigates different Level 1 fair value measurements of exchange-traded funds'

(ETFs) equity investments. Using descriptive methods, it compares actual and stated fair value measurement policies. In addition, comparative value relevance of these measurements is investigated in regression analysis. Most fair value measurements are based on closing prices, but stated accounting policies and actual measurements frequently differ. Results also show that the bid-close spread of underlying investments is value-relevant in determining the bid-close spreads of ETFs themselves. Findings are specific to unleveraged ETFs, the sample country and sample period used and only apply to investments in listed equities. Conclusions from this study may assist in predicting market perceptions of the risk of listed equity portfolios. This paper sheds light on the practical impact of the recent change in fair value measurement guidance. This study provides evidence on the size of the bid-ask spread of actual investment portfolios and its potential impact. It shows that bid-close spreads of underlying investments are used to price the bid-close spreads of ETFs themselves and that stated and actual accounting policies often differ. Findings imply that standard-setters might be influenced by actual accounting practices.

ORiON

Terblanche, SE & De la Rey, T (2015). Credit price optimisation within retail banking. *ORiON* **30**(2), 85–102

The willingness of a customer to pay for a product or service is mathematically captured by a price elasticity model. The model relates the responsiveness of customers to a change in the quoted price. In addition to overall price sensitivity, adverse selection could be observed whereby certain customer segments react differently towards price changes. In this paper the problem of determining optimal prices to quote prospective customers in credit retail is addressed such that the interest income to the lender will be maximised while taking price sensitivity and adverse selection into account. For this purpose a response model is suggested that overcomes non-concavity and unrealistic asymptotic behaviour which allows for a linearisation approach of the non-linear price optimisation problem. A two-stage linear stochastic programming formulation is suggested for the optimisation of prices while taking uncertainty in future price sensitivity into account. Empirical results are based on real data from a financial institution.

De Jongh, P, De Jongh, E, Pienaar, M, Gordon-Grant, H, Oberholzer, M & Santana, L (2015). The impact of pre-selected variance inflation factor thresholds on the stability and predictive power of logistic regression models in credit scoring. *ORiON* **31**(1), 1–16

Standard Bank, South Africa, currently employs a methodology when developing application or behavioural scorecards that involves logistic regression. A key aspect of building logistic regression models entails variable selection which involves dealing with multicollinearity. The objective of this study was to investigate the impact of using different variance inflation factor (VIF) thresholds on the performance of these models in a predictive and discriminatory context and to study the stability of the estimated coefficients in order to advise the bank. The impact of the choice of VIF thresholds was researched by means of an empirical and simulation study. The empirical study involved analysing two large datasets that represent the typical size encountered in a retail credit scoring context. The first analysis concentrated on fitting the various VIF models and comparing the fitted models in terms of the stability of coefficient estimates and goodness-of-fit statistics while the second analysis focused on evaluating the fitted models' predictive ability over time. The simulation study was used to study the effect of multicollinearity in a controlled setting. All the above-mentioned studies indicate that the presence of multicollinearity in large datasets is of much less concern than in small datasets and that the VIF criterion could be relaxed considerably when models are fitted to large datasets. The recommendations in this regard have been accepted and implemented by Standard Bank.

SOUTH AFRICAN JOURNAL OF BUSINESS MANAGEMENT

Wesson, N, Muller, C & Ward, M (2014). Market under-reaction to open market share repurchases on the JSE. *SAJBM* **45**(4), 59–69

This study examined the long-term performance of open market share repurchase announcements made by companies listed on the JSE during their reporting periods including 1 July 1999 to 2009. A total of 195 open market share repurchase announcements were identified. A maximum outperformance of about 35% was found on day t+550 (about two years subsequent to the announcement). After splitting the sample into 'value' (low P/E ratio) and 'growth' shares (high P/E ratio), it was found that the outperformance was almost entirely confined to the value portfolio, reaching a maximum of about 80% by day t+630 (about two-and-a-half years subsequent to the announcement). This study applied a more robust research methodology than used in earlier South African research on this topic; it also used an improved dataset and extended the research period, compared to other research. The results of this study showed much higher positive abnormal returns than were found in earlier international and South African studies. Investors should take advantage of the informational value of open market repurchase announcements and the related significant abnormal returns to be earned.

Hammar, S (2014). Value and small firms premium in the South African market. *SAJBM* **45**(4), 71–91

Numerous studies have identified both value and size effects existing in international markets. Fewer studies have been conducted that document the same effects in the South African market. In this study, portfolios were constructed based on four valuation multiples, as well as market capitalisation from 1999–2012. In this 14-year period it was found that value stocks predominantly outperformed growth stocks when defined by P/E or P/CF. Growth stocks outperformed value stocks when the portfolios were based on P/B and DY. Also, significant evidence of a small firm premium was identified on the JSE, regardless of the valuation multiple. Furthermore, small-cap value stocks generated the highest mean returns over the period. The study identifies the prevalence of these premiums on the JSE, but the comprehensive explanations for these anomalies remain inconclusive.

Du Toit, SG & Krige, JD (2014). The price-to-book effect on the JSE: valuation disparities and subsequent performance. *SAJBM* **45**(4), 93–9

The purpose of this study was to determine whether the relative out- or underperformance of a value portfolio versus a growth portfolio can be anticipated in advance by comparing a valuation difference multiple with the subsequent five-year relative performance of the value and growth portfolios. The valuation difference multiple was calculated as the median price-to-book value (P/B) ratio of the growth portfolio divided by the median P/B ratio of the value portfolio. Using monthly data for the period 1991 to 2011, this study found that in most instances the higher the valuation difference multiple, the higher the outperformance of the value portfolio over the subsequent five-year period, as compared to the growth portfolio.

Ackers, B (2015). Ethical considerations of corporate social responsibility—a South African perspective. *SAJBM* **46**(1), 11–21

Today, companies are under increasing pressure to implement corporate social responsibility (CSR) programmes that account for the economic, social and environmental impacts of their operations. In addition to companies voluntarily wanting to be seen as responsible corporate citizens, the requirement for CSR reporting is being institutionalised by the King Code of Governance (King III) in South Africa. The application of King III is mandatory for all companies listed on the Johannesburg Stock Exchange (JSE), albeit on an 'apply or explain' basis. King III requires companies to not only disclose their CSR performance, but also to ensure that such disclosures have been independently assured. Irrespective of the underlying reason for companies disclosing their CSR performance and for providing independent assurance thereon, companies are moving away from simplistically applying the cliché attributed to Friedman that "the social responsibility of business was to use its resources to engage in activities that would increase profits". Companies that have traditionally provided financial reporting to shareholders, are now beginning to account for their non-financial performance to other stakeholders as well. This paradigm shift requires those charged with company governance and reporting (including accounting professionals usually associated with financial reporting), to re-examine their morals, values and ethical beliefs.

Lai, CS & Hu, K-T (2015). Internal branding with corporate ethical values and corporate social responsibility: the case of the life insurance industry in Taiwan. *SAJBM* **46**(1), 47–55

The purpose of this study is to identify the extent to which corporate ethical values and employee-oriented CSR can be employed as business levers of internal branding for the life insurance industry. Our results indicate that the impact of corporate ethical values on internal branding benefits is fully mediated by knowledge dissemination, and that the impact of employee-based CSR on internal branding benefits is partially mediated by knowledge dissemination. Therefore, for life insurance companies, employee-oriented CSR can be considered an independent lever of internal branding and can be conducted without other auxiliary initiatives to induce internal branding benefits.

Ruiz-Palomino, P, Del Pozo-Rubio, R & Martinez-Canas, R (2015). Risk and return characteristics of environmentally and socially responsible firms in Spain during a financial downturn: 2008–11. *SAJBM* **46**(2), 65–76

The onset of the global financial crisis in 2008 undermined trust in financial markets, with immediate damage to businesses and enduring negative effects for numerous national economies. The situation also has endangered progress in terms of investments in environmental and social management (ESM) issues, because managers may be more likely to embrace the misguided notion that such investments represent a non-returnable costs that will hinder firms' financial performance. Yet ESM is needed now more than ever, because "doing good and doing well" messages are highly appreciated by stakeholders and can substantially improve a firm's competitiveness. This article analyses the performance of the Spanish FTSE4Good IBEX index, compared with that of the Spanish IBEX 35 index, during the financial crisis and reveals slightly better performance for the former. Thus, considering the difficult financial context, indicators of good environmental and social performance, among other factors, might have positive effects on stock index performance. The findings offer some key implications for managerial practice.

Wesson, N, Bruwer, BW & Hamman, WD (2015). Share repurchase and dividend payout behaviour: the South African experience. *SAJBM* **46**(3), 43–54

Share repurchases, rather than dividend payments, are increasingly becoming the globally favoured payout method. This has prompted a renewed interest in the field, and raises questions about the actual motivation for share repurchases and whether companies are now repurchasing shares in preference to investing in future growth. This study set out to ascertain whether South African company payout behaviour mirrors global company behaviour. Comprehensive data on share repurchases are, however, not compiled by South African financial data sources or by the Johannesburg Stock Exchange Ltd. In preparation for this study, the authors thus compiled the first comprehensive share repurchase database for companies in selected JSE-listed sectors for the first 11 years (i.e. 1999 to 2009) since share repurchases were first allowed in this country.

Share repurchases were found to be a popular payout method, especially in the more recent periods covered in the study. Payout value was dominated by a few companies paying dividends every year and regularly repurchasing shares. Aspects unique to the South African regulatory environment, however, resulted in the South African share repurchase experience not fully mirroring current global practice. The main constraint in the South African share repurchase environment is that comprehensive, actual-time-based share repurchase data are not available. Recommendations are made on how to align the South African regulatory environment with global best practice. Regulatory changes, as well as continued research in the field, will equip stakeholders to make informed decisions.

SOUTH AFRICAN JOURNAL OF ECONOMIC AND MANAGEMENT SCIENCES

Van Vuuren, GW & Esterhuysen, J (2014). A primer on counterparty valuation adjustments in South Africa. *SAJEMS* **17**(5), 584–600

Counterparty valuation adjustment (CVA) risk accounts for losses due to the deterioration in credit quality of derivative counterparties with large credit spreads. Of the losses attributed to counterparty credit risk incurred during the financial crisis of 2008–9 were due to CVA risk; the remaining third were due to actual defaults. Regulatory authorities have acknowledged and included this risk in the new Basel III rules. The capital implications of CVA risk in the South African milieu are explored, as well as the sensitivity of CVA risk components to market variables. Proposed methodologies for calculating changes in CVA are found to be unstable and unreliable at high average spread levels.

Schaling, E & Kabundi, A (2014). The exchange rate, the trade balance and the J-curve effect in South Africa. *SAJEMS* **17**(5), 601–8

We find that for the period 1994–2011 there is robust statistical evidence that, in the long run, net exports are boosted by a weaker real effective exchange rate. However, this effect does not hold in the short run. We thus find empirical evidence supporting the J-curve effect for South Africa.

Jover, E & Mlambo, C (2014). A review of factors affecting the attractiveness of Angola to private equity (PE) investments. *SAJEMS* **17**(5), 609–23

Angola's attractiveness to PE investors and the potential to increase PE investments in the country are explored. Primary data were collected using a survey of 18 PE funds that invest or have considered investing in Angola, followed by 10 expert interviews to gain deeper insight into the country's institutional and economic environment, and its potential for PE investments. It is found that most PE funds are attracted to Angola by its rapid economic growth and high potential returns. The country is also vastly undersupplied, and many key economic sectors are fast developing, presenting exciting opportunities for investors. Nevertheless, PE in Angola remains limited, mainly owing to the difficulty of doing business in Angola, and owing particularly to the unfavourable regulatory environment. There is no regulation or process when it comes to the registration of PE funds in Angola, and any new regulation that applies to foreign investments is marred by unnecessary red tape, making it difficult for the investment to enter the market. Only two funds are authorised to operate in Angola: Fundo de Investimento Privado de Angola (FIPA), and BESA Activ. Streamlining regulation is critical to increasing PE flows to Angola in order to advance the country's economic and social objectives.

Bhekinkosi, K & Maré, E (2014). Aspects of volatility targeting for South African equity investors. *SAJEMS* **17**(5), 691–9

We consider so-called volatility targeting strategies in the South African equity market. These strategies are aimed at keeping the volatility of a portfolio consisting of a risky asset, typically an equity index, and cash fixed. This is done by changing the allocation of the assets based on an indicator of the future volatility of the risky asset. We use the three-month rolling implied volatility as an indicator of future volatility to influence our asset allocation. We compare investments based on different volatility targets to the performance of bonds, equities, property as well as the Absolute Return peer mean. We examine risk and return characteristics of the volatility targeting strategy as compared to different asset classes.

Jacobs, J & Van Vuuren, G (2015). The role of cost of capital in regulatory capital discrepancies among developing countries. *SAJEMS* **18**(1), 84–104

Capital as a regulatory instrument has been shown to contribute to competitiveness distortions between developed and developing countries. There is a dearth of literature that analyses the possibility of further competitiveness discrepancies to which capital requirements may contribute among developing countries. This article explores whether regulatory capital requirements lead to unequal competitive conditions between developing countries based on their costs of capital. It also attempts to identify drivers of such discrepancies. Data of 52 financial institutions from 20 countries spread across four geographical regions are used for the analysis.

Özer, G, Ergun, E & Yilmaz O (2015). Effects of intellectual capital on qualitative and quantitative performance: evidence from Turkey. *SAJEMS* **18**(2), 143–54

Intellectual capital is among the new, advanced management notions developed to overcome the inadequacy of previous administrations, to adapt to new situations and forge ahead of the competition. Intellectual capital means the information, experience and skills that offer advantage in competition and reveal the values existing within the structure of an enterprise. These values also exist in the relationship between the enterprise and the environment and with the employees. Although some research studies on intellectual capital (IC) have been conducted, to date no research has been carried out on the effects of IC on qualitative and quantitative organisational performance. For this reason, IC and its effects on firm performance (both qualitative and quantitative) were evaluated in this study. Following the evaluation of the intellectual capital and its sub-elements, the differentiation of the sub-elements is made. Then the reliability and validity of these sub-factors are calculated. The intellectual capital model has been tested by the structural equality model (SEM). According to research results, IC explains 92 per cent of a firm's performance. The effect of IC on qualitative performance is 0,84, while on quantitative performance it is 0,72. RC impresses qualitative performance with coefficient 0,94, quantitative performance with coefficient 0,60; HC impresses qualitative performance with coefficient 0,92, quantitative performance with coefficient 0,54 less; SC impresses qualitative performance with coefficient 0,90, quantitative performance with coefficient 0,53. According to the results of the research, IC affects both the qualitative and the quantitative performance of firms by supplying extensive knowledge to the managers.

Du Toit, E (2015). Revisiting the relationship between different financial risk measures and the market return on ordinary shares in South Africa. *SAJEMS* **18**(2), 218–31

The main aim of this study was to test whether there is a positive relationship between different financial risk measures and the expected return of a share. This study was performed in 1995 by Brümmer and Wolmarans, who obtained results contrary to those of a similar study in the United States of America in 1988. The reasons for the difference were not established. This study follows up the one by Brümmer and Wolmarans to determine whether the passing of 19 years could have brought about any difference in the results. This process was initiated by testing a set of variables from a sample size of 107 JSE-listed companies from 2002 to 2012 for linearity. As there was no such linear relationship between any of the variables, no assumptions can be made about any relationship between share return and the risk measures tested here. If investors were risk averse, one would expect a positive relationship between different financial risk measures and the expected return of a share. This is not the case in the South African market.

Heymans, A & Brewer, WP (2015). The influence of volatility spill-overs and market beta on portfolio construction. *SAJEMS* **18**(2), 277–90

This study adds to Modern Portfolio Theory (MPT) by providing an additional measure to market beta in constructing a more efficient investment portfolio. The additional measure analyses the volatility spill-over effects among stocks within the same portfolio. Using intraday stock returns from five top-40 listed stocks on the JSE between July 2008 and April 2010, volatility spill-over effects were estimated with a residual-based test (aggregate shock [AS] model) framework. It is shown that when a particular stock attracted fewer volatility spill-over effects from the other stocks in the portfolio, the overall portfolio volatility decreased as well. In most cases market beta showcased similar results. Therefore, in order to construct a more efficient risk-adjusted portfolio, one requires both a portfolio that has a unit correlation with the market (beta-based), and stocks that showcase the least amount of volatility spill-over effects amongst one another. These results might assist portfolio managers to construct lower mean variance portfolios.

Ertuğ, ZK & Girginer, N (2015). Evaluation of banks' commercial credit applications using the analytic hierarchy process and Grey relational analysis: a comparison between public and private banks. *SAJEMS* **18**(3), 308–24

The purpose of this study is to develop an evaluation model that considers the quantitative and qualitative criteria for the appropriate selection of firms demanding commercial credit for both public and private banks. In this paper, the authors propose an integrated model that combines the Analytic Hierarchy Process (AHP) and Grey Relational Analysis (GRA) into a single evaluation model. The model is illustrated with a case study on bank experts to demonstrate the effectiveness of this integrated method for four firms that applied for a commercial loan. In this study, AHP is applied to determine the weight of the criteria, and GRA is performed to determine the most appropriate firm. The results of this study indicate that, whereas firm morality and news criteria are the main criteria with the highest priority, sale and marketing constructions are the main criteria with the lowest priorities for both public and private banks. In addition, according to the results of GRA, the most appropriate firm for a public bank is Firm 1, and the most appropriate firm for a private bank is Firm 2.

Bradfield, DJ & Munro, B (2015). Raising the bar on the foreign portfolio to 25 per cent: strategic implications for South African investors. *SAJEMS* **18**(3), 410–24

Regulation 28 of the Pension Funds Act now permits an increased allocation of 25 per cent to foreign investments. The regulation previously only permitted a 20 per cent allocation. Establishing the optimal foreign allocation for South African portfolio managers given the 25 per cent upper bound is an important consideration for strategic portfolio planning. In this paper we consider two methodological approaches to establish a strategic foreign allocation weight. Our first approach considers the strategic role of foreign investment in South African global balanced portfolios by using a mean-variance efficient frontier framework over a long-term period. We also implement a second assessment methodology that utilises a nonparametric procedure. Both the mean-variance and the non-parametric methodology yield compelling evidence for the foreign allocation to be set at the maximum allowable bound of 25 per cent.

Taljaard, CCH, Ward, MJD & Muller, CJ (2015). Board diversity and financial performance: a graphical time-series approach. *SAJEMS* **18**(3), 425–48

Directors need to guide and govern companies on behalf of and for the benefit of shareholders and stakeholders. However questions remain as to whether boards with higher levels of diversity amongst directors are better equipped to fulfil their fiduciary duty than boards with lower levels of diversity. This research examines whether increased levels of diversity within boards are associated with improved financial performance to shareholders. From the literature, several theoretical frameworks that could explain why increased diversity might or might not lead to improved board performance were noted. Share returns and directors' demographic data were collected for a sample of the largest 40 companies listed on the JSE from 2000 to 2013. This data was analysed using Muller and Ward's (2013) investment style engine by forming portfolios of companies based on board-diversity constructs. Time-series graphs of cumulative portfolio market returns were analysed to determine if the diversity dimensions tested were associated with improved share performance. The results show that racial diversity within boards is not associated with financial performance. However, increased gender diversity and younger average board age are shown to have strong associations with improved share price performance. These findings are mainly attributed to agency-, resource dependency, human capital and signalling theories. Increased diversity is seen to bolster independence and lessen agency problems. Rising diversity levels also enlarge boards' external networks, allowing diverse stakeholders' needs to be accommodated and limiting dependence on strategic resources. Finally, as human capital is increased, the collection of different skills and experiences are associated with better performance. The results, based on a more robust methodology and improved dataset, provide additional support to previous studies.

SOUTH AFRICAN JOURNAL OF ECONOMICS

Duncan, AS & Kabundi, A (2014). Global financial crises and time-varying volatility comovement in world equity markets. *SAJE* **82**(24), 531–50

This paper studies volatility comovement in world equity markets between 1994 and 2008. Global volatility factors are extracted from a panel of monthly volatility proxies relating to 25 developed and 20 emerging stock markets. A dynamic factor model (FM) is estimated using two-year rolling-window regressions. The FM's time-varying variance shares of global factors map variations in volatility comovement over time and across countries. The results indicate that global volatility linkages are significantly stronger during financial crisis periods in Asia (1997–8), Brazil (1999), Russia (1998) and the United States (2000, 2007–8). Emerging markets are weakly synchronised with world volatility in comparison with developed markets. In particular, emerging market comovement is significantly lower than developed market comovement during the Asian and US sub-prime crises. This suggests a degree of decoupling of emerging markets from the global drivers of volatility during these periods.

Rangasamy, L (2014). Capital flows: the South African experience. *SAJE* **82**(24), 551–66

There has been a significant rise in the empirical work distinguishing between episodes of sharp slowdowns and surges in capital inflows. Much of this analysis has centred on gaining a better understanding of the cyclical behaviour of capital flows. This paper continues in this vein by identifying capital flow episodes for South Africa and analyses the nature and main drivers of cross-border flows during these episodes. This paper makes two major contributions to the empirical work on South African capital flows. First, specific attention is given to some pertinent measurement issues in the identification of capital flow episodes for South Africa. The post capital account liberalisation period (post-1995 period) is delineated into a “normal” period (when capital inflows were close to historical averages) and an “abnormal” period (when capital inflows deviated significantly from the historical average). Second, the paper identifies some defining characteristics during these two periods. In this regard, the behaviour of domestic and foreign agents as drivers of capital flows and the probability of capital flow reversals across asset classes are given particular attention. Although these issues have significant policy implications, they have, to date, been given limited attention in the empirical work on South African capital flows.

Burger, P (2014). Inflation and market uncertainty in South Africa. *SAJE* **82**(24), 583–602

Comparison of the movements in the VIX index, the rand–dollar exchange rate and South African CPI inflation reveals a striking resemblance between them, raising the question as to whether or not there is an empirical relationship among them. The aim of this paper is to determine whether or not changes in market uncertainty, as reflected in the VIX index, influence South African inflation. Given that the VIX index reflects market uncertainty, its impact on the inflation rate may differ between times of heightened uncertainty and normality, thus suggesting the presence of multiple regimes. To cater for this possibility, the analysis first uses the general-to-specific procedure (including squared and cubed values of dependent and independent variables) with impulse indicator saturation dummies to look for non-linear behaviour in the form of statistically significant squared and cubed variables and clustered periods of outlier dummies that might reflect an alternative regime. Finding such periods, the analysis next uses a Markov-switching model to model this non-linear behaviour explicitly. The results show that market volatility as measured by the VIX indeed explains South African inflation. Moreover, as shown by the second regime of the Markov-switching model, when market volatility is elevated, its influence on inflation also increases

Jooste, C & Jhaveri, Y (2014). Determinants of time-varying exchange rate pass-through in South Africa. *SAJE* **82**(24), 603–15

The pass-through of shifts in the rand exchange rate to consumer price inflation has been well documented for South Africa. Although estimates of the absolute level of pass-through vary, some studies document a decline in pass-through over time. In order to better illuminate the policy implications of pass-through, this paper seeks to add to the literature by decomposing pass-through into a number of time-varying impulses. This has the advantage of providing deeper insights of pass-through over time and across various monetary policy regimes. We then analyse the determinants of time-varying pass-through. Our results confirm that pass-through has declined over time but is subject to a stable and low inflation environment. We also show that a volatile exchange rate leads to higher pass-through.

Chinhamu, K, Huang, C-K, Huang, C-S & Hannujuddy, J (2015). Empirical analyses of extreme value models for the South African mining index. *SAJE* **83**(1), 41–55

While the classical normality assumption is simple to implement, it is well known to underestimate the leptokurtic behaviour demonstrated in most financial data. After examining properties of the Johannesburg Stock Exchange Mining Index returns, we propose two extreme value models to fit its negative tail with a higher degree of accuracy. The generalised extreme value distribution (GEVD) is fitted using the block maxima approach, while the generalised Pareto distribution (GPD) is fitted using the peaks-over-threshold method. Numerical assessment of value-at-risk (VaR) estimates indicates that both GEVD and GPD increasingly outperform the normal distribution as we move further into the lower tail. In addition, GEVD produces lower estimates relative to that of the historical VaR, and GPD provides slightly more conservative estimates for adequate capitalisation.

Barugahara, F (2015). The impact of political instability on inflation volatility in Africa. *SAJE* **83**(1), 56–73

This paper investigates whether political instability leads to volatile inflation using a panel of 49 African countries. The study uses novel measures of political instability, particularly the state failure index and state fragility index. In the field of political instability and inflation volatility, this is the first study to measure inflation volatility as the conditional variance of inflation estimated from GARCH (1, 1) model. Adopting the system-generalised method of moments estimator for linear dynamic panel models for the sample period 1985–2009, the study documents a positive statistically significant effect of political instability on inflation volatility.

Du Plessis, S & Reid, MB (2015). The exchange rate dimension of inflation targeting: target levels and currency volatility. *SAJE* **83**(2), 174–79

The surprising volatility of floating exchange rates have puzzled macroeconomists and challenged policy-makers since the seventies. This is no less true in South Africa where the rand's volatility is a long-standing policy and business challenge. This paper extends the literature on nominal and institutional factors associated with currency volatility. Rose's description of inflation as "Bretton Woods in reverse" is the departure point and is read with Berganza and Broto's recent demonstration in a time series study that inflation-targeting emerging market economies have experience higher exchange rate volatility. Meanwhile Bleaney and Tian have shown the cross-sectional connection between the level of inflation and exchange rate volatility. We build on Bleaney and Tian's cross-sectional approach to investigate the association between the level at which inflation-targeting countries target inflation and exchange rate volatility over the long run. Crucially, we control for the average level of inflation and distinguish between inflation-targeting countries that target high and low levels of inflation, in order to investigate whether the choice of the level of the inflation target (an institutional feature) is associated with greater exchange rate volatility.

Fincke, B & Greiner, A (2015). Public debt and economic growth in emerging market economies. *SAJE* **83**(3), 357–70

This paper empirically studies the relationship between public debt and economic growth for selected emerging market economies by performing panel data estimations. The results reveal a statistically significant positive correlation between public debt and the subsequent growth rate of per capita gross domestic product (GDP). Population and investment are also positively correlated with per capita growth, whereas the initial level of real GDP per capita exerts a negative influence on growth, implying conditional convergence. Other variables such as the inflation rate, the trade balance or the exchange rate do not yield a statistically significant effect with respect to economic growth.

Bittencourt, M, Van Eyden, R & Seleteng, M (2015). Inflation and economic growth: evidence from the Southern African Development Community. *SAJE* **83**(3), 411–24

In this paper, we investigate the role of inflation rates in determining economic growth in 15 sub-Saharan African countries, which are all members of the Southern African Development Community, between 1980 and 2009. The results, based on panel time-series data and analysis (we use the fixed effects and fixed effects with instrumental variables estimators to account for heterogeneity and endogeneity in thin panels), suggest that inflation has had a detrimental effect on growth in the community. We highlight that inflation has offset the Mundell–Tobin effect and consequently reduced the much-needed economic activity in the community, and also the importance of an institutional framework conducive to a stable macroeconomic environment as a precondition for development and prosperity in the community.

SOUTH AFRICAN LAW JOURNAL

Kawadza, H (2014). A comment on the liability regime introduced by section 65 of the Financial Services Law General Amendment Act 45 of 2013: notes. *SALJ* **131**(4), 768–77

One outcome of the 2007–9 global financial crisis has been an increased scrutiny of the financial sector's supervisory architecture. The assumption has been that improved supervision will avert future crises by enhancing systemic stability as well as promoting sound and efficient financial systems. (See generally D Alford 'Supervisory colleges: The global financial crisis and improving international supervisory coordination' (2010) 24 *Emory International LR* 57; see also the UK Financial Services Authority 'Turner Review: A regulatory response to the global banking crisis' available at http://www.fsa.gov.uk/pubs/other/turner_review.pdf, accessed on 20 July 2013.) More specifically, post-financial crisis reforms have focused on the need to evaluate supervisors' market-based accountability and to redefine the boundaries and nature of their liability towards third parties (see for example D Nolan 'The liability of financial supervisory authorities' (2012) 4 *Journal of European Tort Law* 190; R J Dijkstra 'Liability of financial supervisory authorities in the European Union' (2012) 3 *JETL* 346).

Konstant, A (2014). Passive investments' attempt to find a home in South African competition law. *SALJ* **131**(4), 819–46

The issue of passive investments in competitors remains a challenge in both the fields of economics and law. Economists have long theorised the potential anti-competitive effects of passive investments. Some have gone so far as to claim that without a controlling interest, such investments cannot be anti-competitive. In the recent efforts to consolidate these risks with competition law, particularly the concept of merger control, the EU, through Ryanair's acquisition of a minority interest in Aer Lingus, and South Africa with its comic to-and-fro in the Primedia case, have found the two to be unhappy bedfellows. The reasons for the difficulty in accepting the analysis of passive investments are due to the evidentiary requirements that must be met when attempting to prohibit a merger, and the characteristics of passive investments themselves. The result is that passive investments are better suited to some other part of the Competition Act. However, given the wording in the Competition Act, it may prove to be impossible to find a home in South African competition law for a form of analysis which will be adequate enough to quell the fear of passive investments.

SOUTH AFRICAN MEDICAL JOURNAL

Burger, EH, Groenewald, P, Rossouw, A & Bradshaw, D (2015). Medical certification of death in South Africa—moving forward. *SAMJ* **105**(1), 27–30

Despite improvements to the Death Notification Form (DNF) used in South Africa (SA), the quality of cause-of-death information remains suboptimal. To address these inadequacies, the government ran a train-the-trainer programme on completion of the DNF, targeting doctors in public sector hospitals. Training materials were developed and workshops were held in all provinces. This article reflects on the lessons learnt from the training and highlights issues that need to be addressed to improve medical certification and cause-of-death data in SA. The DNF should be completed truthfully and accurately, and confidentiality of the information on the form should be maintained. The underlying cause of death should be entered on the lowest completed line in the cause-of-death section, and if appropriate, HIV should be entered here. Exclusion clauses for HIV in life insurance policies with Association of Savings and Investments South Africa companies were scrapped in 2005. Interactive workshops provide a good learning environment, but are logistically challenging. More use should be made of online training resources, particularly with continuing professional development accreditation and helpline support. In addition, training in the completion of the DNF should become part of the curriculum in all medical schools, and part of the orientation of interns and community service doctors in all facilities.

Moodley, Y & Biccard, BM (2015). Predictors of in-hospital mortality following non-cardiac surgery: Findings from an analysis of a South African hospital administrative database. *SAMJ* **105**(2), 126–9

Predictors of in-hospital mortality (IHM) following non-cardiac surgery in South African (SA) patients are not well described. The objective of this paper is to determine the association between patient comorbidity and IHM in a cohort of SA non-cardiac surgery patients. Data related to comorbidity and IHM for 3 727 patients aged ≥45 years were obtained from a large administrative database at a tertiary SA hospital. Logistic regression analysis was used to determine independent predictors of IHM. In addition, population-attributable fractions (PAFs) were calculated for all clinical factors identified as independent predictors of IHM. The results show that renal dysfunction, congestive heart failure, cerebrovascular disease, male gender and high-risk surgical specialties were independently associated with IHM (odds ratios (95% confidence intervals) 7.585 (5.480–10.50); 2.604 (1.119–6.060); 2.645 (1.414–4.950); 1.433 (1.107–1.853); and 1.646 (1.213–2.233), respectively). Ischaemic heart disease, diabetes and hypertension were not identified as independent predictors of IHM in SA non-cardiac surgery patients. Renal dysfunction had the largest contribution to IHM in this study (PAF 0.34), followed by high-risk surgical specialties (PAF 0.15), male gender (PAF 0.08), cerebrovascular disease (PAF 0.03) and congestive heart failure (PAF 0.03). We conclude that renal dysfunction, congestive heart failure, cerebrovascular disease, male gender and high-risk surgical specialties were major contributors to increased IHM in SA non-cardiac surgery patients. Prospectively designed research is required to determine whether ischaemic heart disease, diabetes and hypertension contribute to IHM in these patients.

Pillay, V, Davies, MA, King, A & Eley, B (2015). Short-term treatment outcomes of children starting antiretroviral therapy in the intensive care unit, general medical wards and outpatient HIV clinics at Red Cross War Memorial Children's Hospital, Cape Town, South Africa: A retrospective cohort study. *SAMJ* **105**(3), 220–7

Many HIV-infected children are initiated on antiretroviral therapy (ART) during hospitalisation in South Africa (SA). No published data on these outcomes exist. The objective of this paper is to assess the short-term outcomes of children initiated on ART in the intensive care unit (ICU), general medical wards (GMWs) and outpatient HIV clinics (OHCs) at Red Cross War Memorial Children's Hospital (RCWMCH), Cape Town, SA. We conducted a retrospective cohort study of HIV-infected children aged <13 years commenced on first-line ART between January 2008 and December 2011. Outcomes included death, virological suppression and changes in CD4 count. Kaplan–Meier estimates, multivariate Cox proportional hazard ratios and logistic regression were used to estimate outcomes at 6 months. The results show that one hundred and six children were commenced ART in the ICU, 509 in the GMWs and 127 in the OHCs; 65.7% of all children were <12 months old. Of children qualifying for rapid ART initiation according to the 2013 national treatment guidelines, 182 (24.9%) started therapy within 7 days of diagnosis. Overall mortality was 6.4% (95% confidence interval (CI) 4.9–8.4). Of children remaining in care at RCWMCH, 51.0% achieved a CD4 percentage ≥25% and 62.3% a viral load ≤50 copies/mL 6 months after ART initiation. Mortality was higher in the ICU cohort (13.2%) than in the GMW and OHC cohorts (5.5% and 3.9%, respectively, log-rank p=0.004). Predictors of mortality included moderate underweight (adjusted hazard ratio (aHR) 2.4; 95% CI 1.1–5.2), severe underweight (aHR 3.2; 95% CI 1.6–6.5), absence of caregiver counselling sessions (aHR 2.9; 95% CI 1.4–6.0) and ART initiation in the ICU (aHR 2.6; 95% CI 1.4–4.9). We conclude that these results highlight the importance of understanding the context in which children initiate ART, when comparing outcomes in different settings.

Gebhardt, GS, Fawcus, S, Moodley, J & Farina, Z (2015). Maternal death and caesarean section in South Africa: results from the 2011–2013 Saving Mothers Report of the National Committee for Confidential Enquiries into Maternal Deaths. *SAMJ* **105**(4), 287–91

In the latest (2011–2013) Saving Mothers report, the National Committee for Confidential Enquiries into Maternal Deaths in South Africa (SA) (NCCEMD) highlights the large number of maternal deaths associated with caesarean section (CS). The risk of a woman dying as a result of CS during the past triennium was almost three times that for vaginal delivery. Of all the mothers who died during or after a CS, 3.4% died during the procedure and 14.5% from haemorrhage afterwards. Including all cases of death from obstetric haemorrhage where a CS was done, there were 5.5 deaths from haemorrhage for every 10 000 CSs performed. The objective of this paper is to scrutinise the contribution or effect of the surgical procedure on the ultimate cause of death by a cross-cutting analysis of the 2011–2013 national data. Data from the 2011–2013 triennial review were entered into an Excel database and analysed on a national and provincial basis. The results show that there were 1 243 maternal deaths where a CS was the mode of delivery and 1 471 deaths after vaginal delivery. More mothers died as a result of CS in the provinces where there is a low overall CS rate. The following CS categories were identified as specific problems: bleeding during or after CS, pre-eclampsia and eclampsia, anaesthesia-related deaths, pregnancy-related sepsis and acute collapse and embolism. We conclude that this is an area of concern, and a concentrated effort should be done to make CS in SA safer. Several recommendations are made to this effect.

Groenewald, P, Azevedo, V, Daniels, J, Evans, J, Boulle, A, Naledi, T & Bradshaw, D (2015). The importance of identified cause-of-death information being available for public health surveillance, actions and research. *SAMJ* **105**(7), 526–7

An amendment to the South African Births and Deaths Registration Act has compromised efforts to strengthen local mortality surveillance to provide statistics for small areas and enable data linkage to provide information for public health actions. Internationally it has been recognised that a careful balance needs to be kept between protecting individual patient confidentiality and enabling effective public health intelligence to guide patient care and service delivery and prevent harmful exposures. This article describes the public health benefits of a local mortality surveillance system in the Western Cape Province, South Africa (SA), as well as its potential for improving the quality of vital statistics data with integration into the national civil registration and vital statistics system. It also identifies other important uses for identifiable cause-of-death data in SA that have been compromised by this legislation.

Robinson, AKL (2015). Social franchising primary healthcare clinics—a model for South African National Health Insurance? *SAMJ* **105**(7), 531–4

This article describes the first government social franchise initiative in the world to deliver a ‘brand’ of quality primary healthcare (PHC) clinic services. Quality and standards of care are not uniformly and reliably delivered across government PHC clinics in North West Province, South Africa, despite government support, numerous policies, guidelines and in-service training sessions provided to staff. Currently the strongest predictor of good-quality service is the skill and dedication of the facility manager. A project utilising the social franchising business model, harvesting best practices, has been implemented with the aim of developing a system to ensure reliably excellent healthcare service provision in every facility in North West. The services of social franchising consultants have been procured to develop the business model to drive this initiative. Best practices have been benchmarked, and policies, guidelines and clinic support systems have been reviewed, evaluated and assessed, and incorporated into the business plan. A pilot clinic has been selected to refine and develop a working social franchise model. This will then be replicated in one clinic to confirm proof of concept before further scale-up. The social franchise business model can provide solutions to a reliable and recognisable ‘brand’ of quality universal coverage of healthcare services.

Shisana, O, Zungu, N, Evans, M, Risher, K, Rehle, T & Clementano, D (2015). The case for expanding the definition of ‘key populations’ to include high-risk groups in the general population to improve targeted HIV prevention efforts. *SAMJ* **105**(8), 659–63

Two additional key populations within the general population in South Africa (SA) that are at risk of HIV infection are black African women aged 20–34 years and black African men aged 25–49 years. The objective of this study is to investigate the social determinants of HIV serostatus for these two high-risk populations. Data from the 2012 South African National HIV Prevalence, Incidence, and Behaviour Survey were analysed for black African women aged 20–34 years and black African men aged 25–49 years. The results show that of the 6.4 million people living with HIV in SA in 2012, 1.8 million (28%) were black women aged 20–34 years and 1.9 million (30%) black men aged 25–49 years. In 2012, they constituted 58% of the total HIV-positive population and 48% of the newly infected population. Low socioeconomic status (SES) was strongly associated ($p<0.001$) with being HIV-positive among black women aged 20–34 years, and was marginally significant among black men aged 25–49 years ($p<0.1$). We conclude that low SES is a critical social determinant for HIV infection among the high-risk groups of black African women aged 20–34 years and black African men aged 25–49 years. Targeted interventions for these key populations should prioritise socioeconomic empowerment, access to formal housing and services, access to higher education, and broad economic transformation.

Van Hoying, DJ, Lategan, HJ, Wallis, LA & Smith, WP (2015). The epidemiology of major incidents in the Western Cape Province, South Africa. *SAMJ* **105**(10), 831–4

Major incidents put pressure on any health system. There are currently no studies describing the epidemiology of major incidents in South Africa (SA). The lack of data makes planning for major incidents and exercising of major incident plans difficult. The objective for the study was to describe the epidemiology of major incidents in the Western Cape Province, South Africa. A retrospective analysis of the Western Cape Major Incident database was conducted for the period 1 December 2008–30 June 2014. Variables collected related to patient demographics and incident details. Summary statistics were used to describe all variables. Seven hundred and seventy-seven major incidents were reviewed (median n=11 per month). Most major incidents occurred in the City of Cape Town (57.8%, n=449), but the Central Karoo district had the highest incidence (11.97/10 000 population). Transport-related incidents occurred most frequently (94.0%, n=730). Minibus taxis were involved in 312 major incidents (40.2%). There was no significant difference between times of day when incidents occurred. A total of 8 732 patients were injured (median n=8 per incident); ten incidents involved 50 or more victims. Most patients were adults (80.0%, n=6 986) and male (51.0%, n=4 455). Of 8 440 patients, 630 (7.5%) were severely injured. More than half of the patients sustained minor injuries (54.6%, n=4 605). It was concluded that major incidents occurred more often than would have been expected compared with other countries, with road traffic crashes the biggest contributor. A national database will provide a better perspective of the burden of major incidents.